

REMARKS

Claims 1-20 are pending in this application. Claims 1-10 have been amended. Claims 11-20 are new. Claims 1, 4, 10, and 11 are independent.

Drawings

The drawings have been objected to. Accordingly, a proposed drawing correction is provided having corrections for Figures 1, 3, and 4, respectively, as requested.

Specification

The specification has been objected to as having references to claim numbers. Accordingly, amendments to the specification delete the references, as requested.

Claim Rejection – 35 USC 112

Claims 1-10 have been rejected under 35 U.S.C. 112, second paragraph, as being indefinite. Applicants have amended the claims in order to clarify the claims. Accordingly, Applicants respectfully request that the rejection be withdrawn.

Claim Rejection – 35 USC 102

Claims 1-10 have been rejected under 35 U.S.C. 102(b) as being anticipated by Friede et al. (U.S. Patent 5,751,750, “the ‘750 patent”). As clarified by the amended claims, the present invention distinguishes over the ‘750 patent, and Applicants respectfully request that the rejection be withdrawn.

The ‘750 patent describes a high-power slab laser having two cooled resonator mirrors (column 4, lines 39-40). Laser radiation applied to the resonator mirrors lead to an undesired thermal distortion of the mirror surfaces (column 1, lines 18-29). One of the resonator mirrors has a heating element. The power supplied to the heating element is controlled in such a way that the sum of the power fed to the resonator mirror by the laser light and the heating elements is kept constant. The resonator mirror is therefore thermally biased, even with the laser switched off (column 4, lines 10-15).

In alternative embodiments, instead of using a heating element, a part 10 of the radiation generated in the resonator is coupled is used for heating a rear side 41b of a convex resonator mirror 41. An absorbing layer 16 serves as a heat source for the compensation of the thermal deformation of the optical components in the beam path of the laser light (column 4, lines 21-43).

On the other hand, unlike the '750 patent, the present invention uses an optical unit having at least three elements in intimate contact for compensating thermal effects, wherein a compensating medium is sandwiched between two optical elements. Thus, Applicants submit that the '750 patent fails to teach or suggest the claimed, "at least three optical transparent elements having an intimate contact", "adjacent elements of said at least three elements having different material properties, of radiation absorption for heating and of radial thermal conduction for creating a distribution of temperature and of thermal dispersion in order to generate a thermal lens." Each of the independent claims recite comparable limitations. Accordingly, Applicants respectfully request that the rejection be withdrawn.

New Claims

New claims 11-15 are directed to elements separated out from original claims 3, 5, 6, and 8. They distinguish over the '750 patent for the reason above for the corresponding independent claims. New claims 16-20 are directed to a method for compensating thermal optical effects in an arrangement of optical components for producing a beam path. Applicants submit that the '750 also does not teach or suggest all of the steps in the claimed method.

CONCLUSION

All objections and rejections raised in the Office Action having been addressed, it is respectfully submitted that the present application is in condition for allowance and such allowance is respectfully solicited. Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Robert W. Downs (Reg. No. 48,222), to conduct an interview in an effort to expedite prosecution in connection with the present application.

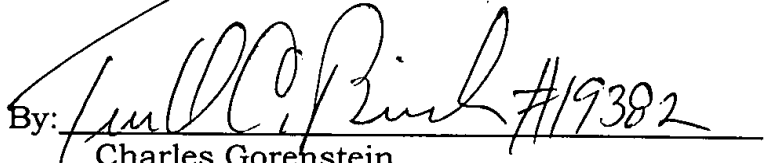
Pursuant to 37 C.F.R. §§ 1.17 and 1.136(a), Applicant(s) respectfully petition(s) for a one (1) month extension of time for filing a reply in connection with the present application, and the required fee of \$110.00 is attached hereto.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any

overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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Attachment(s): Two (2) sheets of proposed drawing corrections